

In re Application of FRIEDEL et al.
Application No. 09/681,106

Amendments to the Claims

1. (Currently Amended) A method comprising:
creating an enterprise policy object providing an enterprise-wide policy governing at least one of resource access and protocol use for a plurality of nodes within a networking environment organized within a plurality of arrays;
creating at least one array policy object, each array policy object ~~providing~~ providing an array-wide policy governing resource access for one or more of the plurality of nodes organized within a corresponding array; and,
for each of one or more of the at least one array policy object, inheriting an instance of the enterprise-wide policy as the array-wide policy such that the array-wide policy of each array policy object is at least initially set to the enterprise-wide policy.
2. (Original) The method of claim 1, wherein the enterprise-wide policy includes a plurality of enterprise rules, each enterprise rule governing at least one of access to a particular resource and use of a particular protocol, each enterprise rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use.
3. (Original) The method of claim 2, wherein each array-wide policy includes a plurality of array rules at least initially equal to the plurality of enterprise rules upon the enterprise-wide policy inherited as each array-wide policy.
4. (Original) The method of claim 3, further comprising, for a requested access via a requested protocol by a node organized within one of the plurality of arrays,
applying the array-wide policy of the policy object corresponding to the one of the plurality of arrays to determine whether to allow the requested access via the requested protocol, such that the requested access via the requested protocol is allowed only where the requested access via the requested protocol is explicitly allowed by the plurality of rules and not explicitly denied by the plurality of rules;

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allowing the requested access via the requested protocol in response to determining that the requested access via the requested protocol is allowed; and,
denying the requested access via the requested protocol in response to determining that the requested access via the requested protocol is not allowed.

5. (Original) The method of claim 1, further comprising, for each of one or more of the at least one array policy object, adjusting the array-wide policy after the array-wide policy has inherited the enterprise-wide policy.

6. (Original) The method of claim 5, wherein
the enterprise-wide policy includes a plurality of enterprise rules, each enterprise rule governing at least one of access to a particular resource and use of a particular protocol, each enterprise rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use; and,
each array-wide policy includes a plurality of array rules, the plurality of array rules at least initially equal to the plurality of enterprise rules upon the enterprise-wide policy inherited as each array-wide policy.

7. (Original) The method of claim 6, wherein adjusting the array-wide policy comprises adding one or more new array rules to the plurality of array rules, each of the new array rules having a negative rule type explicitly denying one of access to a particular resource and use of a particular protocol.

8. (Original) The method of claim 7, further comprising, for a requested access via a requested protocol by a node organized within one of the plurality of arrays,
applying the array-wide policy of the policy object corresponding to the one of the plurality of arrays to determine whether to allow the requested access via the requested protocol, such that the requested access via the requested protocol is allowed only where the requested access via the requested protocol is explicitly allowed by the plurality of rules and not explicitly denied by the plurality of rules;

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allowing the requested access via the requested protocol in response to determining that the requested access via the requested protocol is allowed; and,
denying the requested access via the requested protocol in response to determining that the requested access via the requested protocol is not allowed.

9. (Original) A computer-readable medium having stored thereon a computer program executable by a processor to perform the method of claim 1.

10. (Currently Amended) A method comprising:
creating an enterprise policy object providing an enterprise-wide policy governing resource access for a plurality of nodes within a networking environment organized within a plurality of arrays;
creating at least one array policy object, each array policy object providing providing an array-wide policy governing resource access for one or more of the plurality of nodes organized within a corresponding array;
for each array policy object, inheriting an instance of the enterprise-wide policy as the array-wide policy such that the array-wide policy of each array policy object is initially set to the enterprise-wide policy; and,
for each of one or more of the at least one array policy object, adjusting the array-wide policy after the array-wide policy has inherited the enterprise-wide policy.

11. (Original) The method of claim 10, wherein
the enterprise-wide policy includes a plurality of enterprise rules, each enterprise rule governing at least one of access to a particular resource and use of a particular protocol, each enterprise rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use; and,
each array-wide policy includes a plurality of array rules, the plurality of array rules initially equal to the plurality of enterprise rules upon the enterprise-wide policy inherited as each array-wide policy.

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12. (Original) The method of claim 11, wherein adjusting the array-wide policy comprises adding one or more new array rules to the plurality of array rules, each of the new array rules having the negative rule type.

13. (Original) The method of claim 12, further comprising, for a requested access via a requested protocol by a node organized within one of the plurality of arrays, applying the array-wide policy of the policy object corresponding to the one of the plurality of arrays to determine whether to allow the requested access via the requested protocol, such that the requested access via the requested protocol is allowed only where the requested access via the requested protocol is explicitly allowed by the plurality of rules and not explicitly denied by the plurality of rules;

allowing the requested access via the requested protocol in response to determining that the requested access via the requested protocol is allowed; and,

denying the requested access via the requested protocol in response to determining that the requested access via the requested protocol is not allowed.

14. (Original) A computer-readable medium having stored thereon a computer program executable by a processor to perform the method of claim 10.

15. (Currently Amended) A system for governing resource access among a plurality of nodes within a networking environment, at least ~~one or more~~ some of the plurality of nodes organized within a plurality of arrays, the system comprising:
an enterprise-policy object providing an enterprise-wide policy governing resource access for nodes organized within at least one ~~or more~~ of the plurality of arrays; and,
at least one array policy object, each array policy object providing an array-wide policy governing resource access for nodes organized within a corresponding array, one or more of the at least one array policy object inheriting an instance of the enterprise-wide policy as the array-wide policy such that the array-wide policy is at least initially set to the enterprise-wide policy.

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16. (Original) The system of claim 15, wherein the enterprise-wide policy includes a plurality of enterprise rules, each enterprise rule governing at least one of access to a particular resource and use of a particular protocol, each enterprise rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use.

17. (Original) The system of claim 16, wherein the array-wide policy provided by each of the one or more of the at least one array policy object includes a plurality of array rules at least initially equal to the plurality of enterprise rules upon the enterprise-wide policy inherited as each array-wide policy.

18. (Original) The system of claim 17, wherein the array-wide policy provided by each of the one or more of the at least one array policy object further includes one or more other array rules, each of the one or more other array rules having the negative rule type.

19. (Original) The system of claim 15, wherein the array-wide policy provided by each of the at least one array policy object other than the one or more of the at least one array policy object inheriting the enterprise-wide policy does not inherit the enterprise-wide policy.

20. (Original) The system of claim 19, wherein
the enterprise-wide policy includes a plurality of enterprise rules, each enterprise rule governing at least one of access to a particular resource and use of a particular protocol, each enterprise rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use;

the array-wide policy provided by each of the one or more of the at least one array policy object includes a plurality of first array rules at least initially equal to the plurality

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of enterprise rules upon the enterprise-wide policy inherited as each array-wide policy;
and,

the array-wide policy provided by each of the at least one array policy object other than the one or more of the at least one array policy object inheriting the enterprise-wide policy includes a plurality of second array rules not initially equal to the plurality of enterprise rules, each second array rule having a rule type selected from the positive rule type and the negative rule type.

21. (Original) The system of claim 20, wherein the array-wide policy provided by each of the one or more of the at least one array policy object further includes one or more other first array rules, each of the one or more other first array rules having the negative rule type.

22. (Original) The system of claim 15, further comprising at least one node policy object, each node policy object providing a node policy governing resource access for a corresponding node of the plurality of nodes other than the one or more of the plurality of nodes organized within the plurality of arrays.

23. (Original) The system of claim 22, wherein the node policy includes a plurality of node rules, each node rule governing at least one of access to a particular resource and use of a particular protocol, each node rule having a rule type selected from a positive rule type and a negative rule type, the positive rule type explicitly allowing at least one of access and use and the negative rule type explicitly denying at least one of access and use.

24. (New) The method of claim 3, wherein the enterprise-wide policy and the array-wide policy are overseen according to one of a plurality of modes comprising:

- an enterprise-only mode;
- an integrated mode;
- an array-only mode; and

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a stand-alone mode.

25. (New) The method of claim 24 wherein, when overseen according to the integrated mode, each array rule added to the array-wide policy beyond those inherited from the enterprise-wide policy is of the negative rule type.

26. (New) The method of claim 1, wherein the enterprise-wide policy is capable of governing both resource access and protocol use.

27. (New) The method of claim 26, wherein governing protocol use comprises:

- allowing the use of at least one protocol; and
- denying the use of at least one protocol.

28. (New) The method of claim 1, wherein:
the enterprise policy object is secured with a first set of security permissions; and
the array policy object is secured with a second set of security permissions.

29. (New) The method of claim 28, wherein each set of policy object security permissions comprises:

- a read permission;
- a write permission; and
- a change permission.

30. (New) The method of claim 29, wherein each set of policy object security permissions further comprises:

- a write owner permission;
- a write discretionary access control permission; and
- a change system access control list permission.